

April 7, 1960

Dr. Falconer Smith  
Radiation Biology Section  
National Cancer Institute  
National Institutes of Health  
Bethesda 14, Maryland

Dear Dr. Smith:

Thank you for your letter of March 28th. I think that I would in general agree with the interpretation you discussed for your experiments on antibody formation in mice with plasma cell tumors. There must be some homeostatic mechanism governing the total amount of globulin produced and liberated into the serum. The preponderance of the myeloma type globulin in these mice already speaks for a competition between the formation of normal globulin, including antibodies, and the unique globulin produced by the plasma cell tumor. This competition may very well be a cellular competition. I think it would be quite useful to inquire what proportion of the total "normal globulin" in your secondarily immunized animals corresponds to the new antibody. Insofar as this globulin is repressed in the tumor bearing animals, a very large proportion of it should prove to be the new antibody.

Yours sincerely,

Joshua Lederberg  
Professor of Genetics

SMITH, F.